

**REMARKS**

**General Remarks**

With this Amendment, Applicant amends Claims 1-11 and adds new Claims 12-25. No new matter is added. Therefore, Claims 1-25 are all the claims currently pending in the present application.

The Examiner has acknowledged Applicant's claim for foreign priority and the receipt of the certified copy of the priority document. The Examiner has also reviewed and considered the references cited in the Information Disclosure Statement filed September 12, 2001.

**§112 Rejections**

Claims 1-11 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as his invention.

With this Amendment, Applicant amends Claims 1-11 to more clearly recite the invention for which Applicant seeks protection.

Applicant submits that the Claims 1-11, as amended clearly claim the subject matter which Applicant regards as his invention and therefore respectfully request that the §112 rejection of Claims 1-11 be reconsidered and withdrawn.

**Prior Art Rejections**

Claims 1, 7-9, and 11 stand rejected under 35 U.S.C. § 102(e) as allegedly anticipated by Ishii et al., U.S. Patent No. 6,531,995 ("Ishii"). Claim 10 stands rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over Ishii.

**Claim 1.** Regarding Claim 1, Applicant respectfully submits that Ishii fails to disclose or suggest applying a write discharge pulse of a first potential difference to the first display electrodes, as claimed and applying a write discharge pulse of a second potential difference (where the second potential difference has a polarity opposite that of the first potential difference) to the second display electrodes, as claimed.

For example, as illustrated in Fig. 7 and as described at col. 13, ln. 18 to col. 14, ln. 4 of Ishii, during a first time slot ( $c \leq t \leq d$ ) in the address period of the odd-numbered field, the voltage  $+V_x$  is applied only to the electrode X1 (i.e. the odd-numbered X electrode) while the voltage  $+V_a$  is applied to the address electrodes, thus causing no discharge to occur between the electrode X1 and the address electrodes. At the same time, ( $c \leq t \leq d$ ), the voltage  $-V_y$  is applied only to the electrode Y1 (i.e. the odd-numbered Y electrode) while the voltage  $+V_a$  is applied to the address electrodes, thus causing discharge to occur between the Y1 electrode and the address electrodes. The pulse at the voltage  $+V_x$  applied to the odd-numbered X electrode is not a write discharge pulse because it causes no discharge. The pulse at the voltage  $-V_y$  applied to the odd-numbered Y electrode is a write discharge pulse because it causes discharge. Further, as described at column 14, lines 5-20, during a second time slot ( $d \leq t \leq e$ ) in the address period, the voltage  $+V_x$  is applied only to the electrode X2 (i.e. the even-numbered X electrode) while the voltage  $+V_a$  is applied to the address electrodes, thus causing no discharge to occur between the electrode X2 and the address electrodes. At the same time ( $d \leq t \leq e$ ), the voltage  $-V_y$  is applied only to the electrode Y2 (i.e. the even-numbered Y electrode) while the voltage  $+V_a$  is applied to the address electrodes, thus causing discharge to occur between the Y2 electrode and the address

electrodes. The pulse at the voltage  $+V_x$  applied to the even-numbered X electrode is not a write discharge pulse because it causes no discharge. The pulse at the voltage  $-V_y$  applied to the even-numbered Y electrode is a write discharge pulse because it causes discharge.

Accordingly, during the first and second time slots ( $c \leq t \leq d$  and  $d \leq t \leq e$ ), the write discharge pulses are the pulses applied to the odd-numbered Y electrode and to the even-numbered Y electrode. These write discharge pulses have the same potential difference of the same polarity.

Thus, Ishii fails to disclose or suggest applying write discharge pulses having two potential differences of different polarities.

#### **Claims 7-11**

Regarding Claims 7-11, Applicant submits that these claims are patentable at least by virtue of their dependence on Claim 1 and for the following additional reasons.

Regarding Claim 7, Applicant submits that Ishii fails to disclose or suggest carrying out sustain discharges between all first display electrodes and all neighboring second display electrodes, as claimed. In other words, Ishii fails to disclose or suggest sustain discharged between each neighboring pair for display electrodes.

As depicted in Figs. 7, 8, 10, 11, 22, and 23, it is clear that Ishii only discloses sustain discharges between certain neighboring display electrodes, but not between all display electrodes. For example, in Fig. 7, sustain discharges occur between the odd-numbered X electrodes and the odd-numbered Y electrodes and also between the even-numbered X electrodes and the even-numbered Y electrodes, *but not between the neighboring odd-numbered Y electrodes and even-numbered X electrodes.*

Regarding Claim 10, Ishi fails to teach or suggest a priming discharge pulse, as claimed, below 10 V/ $\mu$ s. Ishii fails to teach or suggest any rate of any pulse. The Examiner asserts that “It would have been obvious for one of ordinary skill in the art at the time of the invention to use a short time, or below 10V/ $\mu$ s, in which the priming discharges are made to occur so as to increase the operating speed and reduce crosstalk.” (Office Action, p. 4). However, the Examiner fails to note any portion of Ishii which supports this assertion. In fact, while Ishii briefly mentions that high-speed display is a positive characteristic of a related art plasma display panel (col. 1, ln. 17), there is no further mention of operating speed, there is no discussion of how to obtain operating speed, and there is no discussion of crosstalk in the Ishii reference. Therefore, the only possible motivation for the Examiner’s proposed assertion is Applicant’s own disclosure, the reliance on which constitutes impermissible hindsight reconstruction under MPEP §2143 (*see also In re Vaeck*, 20 USPQ 1438 (Fed. Cir. 1991)).

Regarding Claim 11, Ishii fails to disclose or suggest data electrodes, as claimed, which form islands in each display cell. Ishii describes data electrodes (“address electrodes”) which run beneath the center of each display cell. Therefore, there is no need, as in the present invention, for islands to be formed and positioned opposite the display electrodes.

**Claims 1 and 7-11 are patentable.** In view of at least the above, Applicant submits that Claims 1 and 7-11 are patentable over the cited prior art and respectfully request that the Examiner’s rejections thereof be reconsidered and withdrawn.

**New Claims 12-25**

With this Amendment, Applicant adds new Claims 12-25 in order more fully to cover various aspects of Applicant's invention as disclosed in the specification. Applicant respectfully submits that Claims 12-25 are patentable over the cited prior art for at least the same reasons as discussed above with respect to Claims 1-11.

**Conclusion**

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned attorney at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.


Respectfully submitted,

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